

# Work Order ID 63115

Thursday, October 21, 2010 1:04:07 PM



Page 1

Item ID: D4021-7

Accept



Setup Start



Revision ID:

Item Name: Hoop

Stop



Start Date: 10/21/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 10/28/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 10-10-24

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D4021

B

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

Cut as per dwg D4021

Prog Rev: B

Dwg Rev: B

Deburr as required

may not pull

10-10-26

(6)

plu ->

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Memo

0.00

Quality Control

10-10-26

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D4021-7 PAR #: N/A Fault Category: Sm fab NCR: Yes No DQA: JA Date: 10/11/08  
 Resolution: re-work Disposition: re-approve QA: N/C Closed: CR Date: 10/11/08

NCR: 63115		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
10/10/26	# 100	employee Found after his Parts are too thick. supposed to be .630 +.000 -.050 part thickness is .634-.638.	NP 10/10/26 NP 10/10/26	ACCEPTABLE TO GRIND to Fit in to 3/4 x 3/4 square square tubing. on step # 130	NP 10/10/26 NP 10/10/26	S 10/10/26	NP 10/10/26 NP 10/10/26	S 10/10/26
		LC Raw mat is missing .634-.638 subplan						S 10/10/26

NOTE: Date & initial all entries

**Work Order ID 63115**

Thursday, October 21, 2010 1:04:07 PM

Page 2

Item ID: D4021-7

Accept

Revision ID:

Item Name: Hoop

Start Date: 10/21/2010 Start Qty: 6.00

Required Date: 10/28/2010 Req'd Qty: 6.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120



QC

Quality Control

QC8- Inspect parts - second check

0.00

0.00

Memo

8/10/10/27

(x6)

130



Small Fab

Small Fab

Memo  
1- make radius as per dwg  
2- deburr

0.00

0.00

7 m, 1 w/10/28

(6x)

140



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

8/10/10/28

(x6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 63115**

Thursday, October 21, 2010 1:04:07 PM

Page 3

Item ID: D4021-7

Accept

Revision ID:

Item Name: Hoop

Start Date: 10/21/2010 Start Qty: 6.00

Required Date: 10/28/2010 Req'd Qty: 6.00

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start  
Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan  
Code

Accept Reject Reject Insp.  
Qty Qty Number Stamp

150

Identify as per dwg & Stock Location: WA

0.00



Packaging

Memo

0.00

Packaging

10/11/29 602

160

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/11/01  
MF  
10-11-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Thursday, October 21, 2010 1:04:10 PM



**Required Date:** 10/28/2010

**Required Qty: 6.00**

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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2.631158



304 BAR .625 X 3.00

### Location

**Loc Qty**

**Loc Code**

MAT53

0.9391

114968

0.9391

114968

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



## FIRST ARTICLE INSPECTION CHECKLIST

Rev	Date	Change	Revised by	Approved
A	10.04.01	New Issue	KJ	
B	10.08.18	Dimensions revised per Dwg Rev B	KJ	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

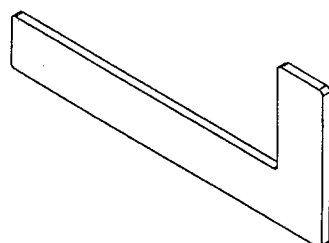
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Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

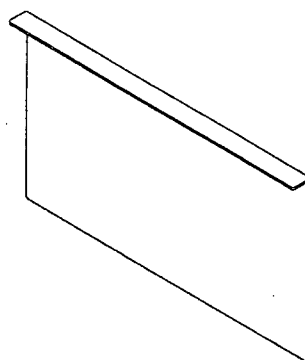
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

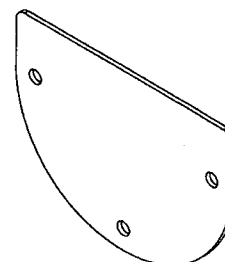
8 7 6 5 4 3 2 1



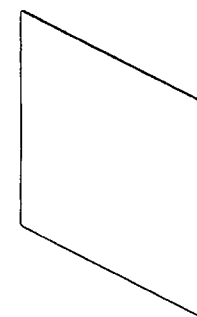
D4021-1 HANDLE PLATE



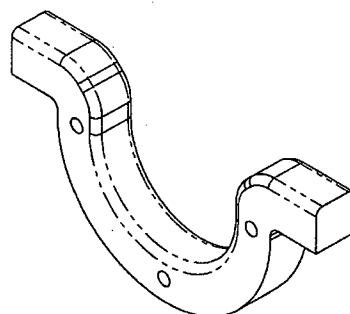
D4021-3 DATA PLATE



D4021-5 BLANKING PLATE



D4021-11 INSTRUCTIONS PLATE



D4021-7 HOOP



D4021-9 BUSHING

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 63115  
*2/10/10-21*

**RELEASED**  
2010-04-14  
*MP*

B	POWDER COAT SPEC ADDED TO NOTE 2 (A8-2)	JPH	10.04.06
A	NEW ISSUE	JPH	10.01.29
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	JPH		
CHECKED	<i>[Signature]</i>		
MFG. APPR.	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	10.04.06		
<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA DRAWING NO. <b>D4021</b> TITLE <b>MISC PARTS - 350 BASKET</b> REV. B SHEET 1 OF 3 SCALE NTS <small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>			

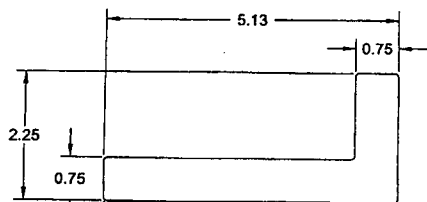
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

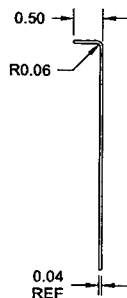
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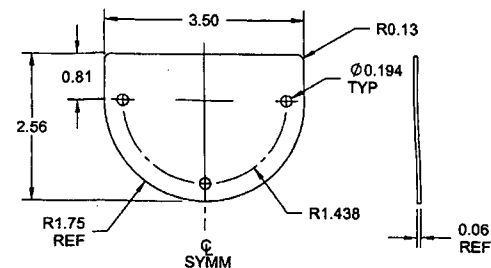
**NOTE:** Date & initial all entries



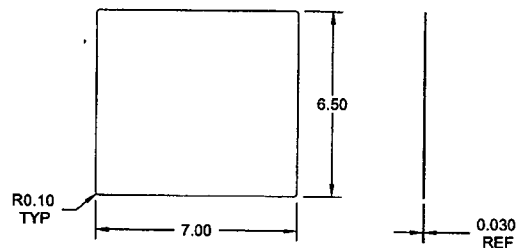
**D4021-1 HANDLE PLATE**



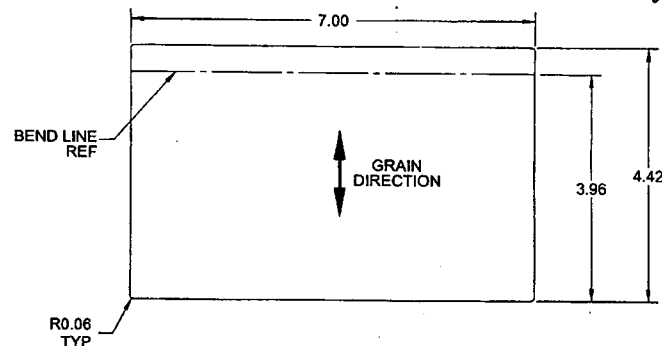
**D4021-3 DATA PLATE**  
MAKE FROM D4021-3F



**D4021-5 BLANKING PLATE**



**D4021-11 INSTRUCTIONS PLATE**



**D4021-3F DATA PLATE**  
FLAT PATTERN

**RELEASED**  
2010-04-16  
NIP

- NOTES:**
- 1) MATERIAL -1: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S11GA
  - 3F: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S20GA
  - 5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M303S16GA OR M304S16GA
  - 11: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH, PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240 REF DART SPEC M304S22GA

- 2) FINISH:**
- 1/-3/-11: NONE
  - 5: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT -1: 0.18 lbs -3: 0.35 lbs  
-5: 0.14 lbs -11: 0.39 lbs

DESIGN	AJS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	XX	DRAWING NO.	REV. B
MFG. APPR.	XX	<b>D4021</b>	SHEET 2 OF 3
APPROVED	XX	TITLE	SCALE
DE APPR.	XX	<b>MISC PARTS - 350 BASKET</b>	NTS
DATE	10.04.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	

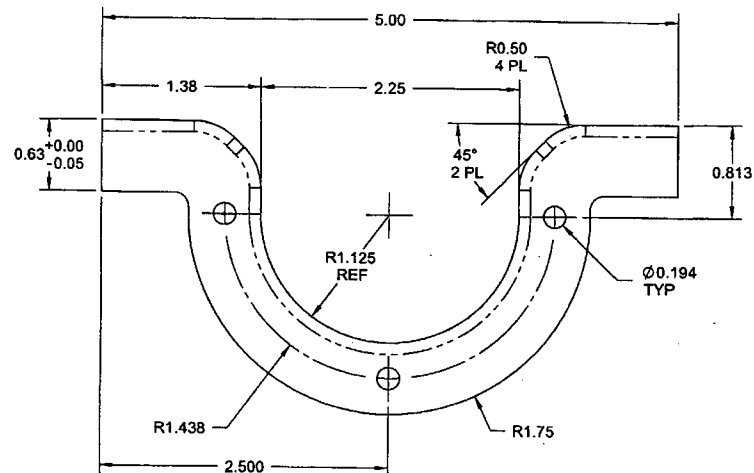
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

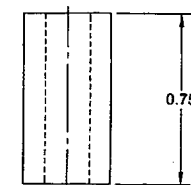
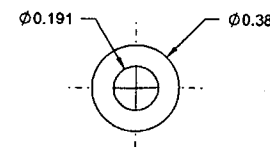
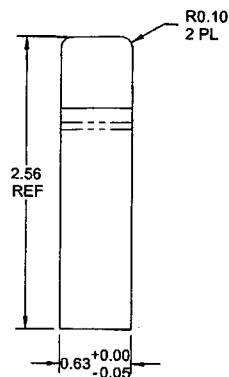
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D4021-7 HOOP**



**D4021-9 BUSHING**

*also 43115*

**RELEASED**  
2010-04-14

*MP*

**NOTES:**

- 1) MATERIAL-7: 304/316 STAINLESS STEEL BAR, PER ASTM A276  
REF DART SPEC M304B
- 9: 304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276  
REF DART SPEC M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -7: 0.80 lbs  
-9: 0.02 lbs

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4021	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	MISC PARTS - 350 BASKET	NTS
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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